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Installation Instructions: S&S® Super Stock® C Ignition
in Carbureted, 2004–2007 American Ironhorse® Motorcycles

DISCLAIMER:
S&S parts are designed for high performance, closed course, racing applications and are intended for the very experienced rider only. The installation of S&S parts may void or adversely affect your factory warranty. In addition such installation and use may violate certain federal, state, and local laws, rules and ordinances as well as other laws when used on motor vehicles used on public highways, especially in states where pollution laws may apply. Always check federal, state, and local laws before modifying your motorcycle. It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other obligations, duties, and risks associated therewith.

All brand names, trademarks, or registered trademarks mentioned in these instructions are the property of their respective holders and are used in a reference only capacity.

The words Harley®, Harley-Davidson®, H-D®, Sportster®, Evolution®, and all H-D part numbers and model designations are used in reference only. S&S Cycle is not associated with Harley-Davidson, Inc.

SAFE INSTALLATION AND OPERATION RULES:

Before installing your new S&S part it is your responsibility to read and follow the installation and maintenance procedures in these instructions and follow the basic rules below for your personal safety.

- Gasoline is extremely flammable and explosive under certain conditions and toxic when breathed. Do not smoke. Perform installation in a well ventilated area away from open flames or sparks.
- If motorcycle has been running, wait until engine and exhaust pipes have cooled down to avoid getting burned before performing any installation steps.
- Before performing any installation steps disconnect battery to eliminate potential sparks and inadvertent engagement of starter while working on electrical components.
- Read instructions thoroughly and carefully so all procedures are completely understood before performing any installation steps. Contact S&S with any questions you may have if any steps are unclear or any abnormalities occur during installation or operation of motorcycle with a S&S part on it.
- Consult an appropriate service manual for your motorcycle for correct disassembly and reassembly procedures for any parts that need to be removed to facilitate installation.
- Use good judgment when performing installation and operating motorcycle. Good judgment begins with a clear head. Don't let alcohol, drugs or fatigue impair your judgment. Start installation when you are fresh.
- Be sure all federal, state and local laws are obeyed with the installation.
- For optimum performance and safety and to minimize potential damage to carb or other components, use all mounting hardware that is provided and follow all installation instructions.
- Motorcycle exhaust fumes are toxic and poisonous and must not be breathed. Run motorcycle in a well ventilated area where fumes can dissipate.

IMPORTANT NOTICE:

Statements in this instruction sheet preceded by the following words are of special significance.

WARNING

Means there is the possibility of injury to yourself or others.

CAUTION

Means there is the possibility of damage to the part or motorcycle.

NOTE:
Other information of particular importance has been placed in italic type. S&S recommends you take special notice of these items.

WARRANTY:
All S&S parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of twelve (12) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at S&S's option if the parts are returned to us by the purchaser within the 12 month warranty period or within 10 days thereafter.
In the event warranty service is required, the original purchaser must call or write S&S immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action.
A part that is suspect of being defective must not be replaced by a Dealer without prior authorization from S&S. If it is deemed necessary for S&S to make an evaluation to determine whether the part was defective, a return authorization number must be obtained from S&S. The parts must be packaged properly so as to not cause further damage and be returned prepaid to S&S with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by S&S and the part was found to be defective, repair, replacement or refund will be granted.

ADDITIONAL WARRANTY PROVISIONS:
(1) S&S shall have no obligation in the event an S&S part is modified by any other person or organization.
(2) S&S shall have no obligation if an S&S part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the S&S part.
(3) S&S shall not be liable for any consequential or incidental damages resulting from the failure of an S&S part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in non-conforming condition, or for any other breach of contract or duty between S&S and a customer.
(4) S&S parts are designed exclusively for use in Harley-Davidson® and other American v-twin motorcycles. S&S shall have no warranty or liability obligation if an S&S part is used in any other application.

A. Introduction

The S&S Super Stock® C is a reliable replacement for the stock ignition module found on 2004–2007 American IronHorse® Motorcycles. Note that the unit is designed to work with the stock tachometer and coils. If the motorcycle is fitted with aftermarket components not designed for this application (2004–2007 carbureted AIH motorcycles) the Super Stock C may not function properly.

Installation of this module requires modification of the stock harness. If you are not comfortable with performing motorcycle electrical work or do not have the proper tools, we suggest locating a shop that can perform this work. Also, to install this kit, you will need to obtain the correct components to mate the module to the wiring harness. These can be obtained from most Harley-Davidson® dealerships or shops specializing in Harley-Davidson electrical work.

If you are not familiar with the Deutsch® connector required for the installation of the Super Stock C, we recommend that you review the relevant section in a later model Harley-Davidson Electrical Diagnostic manual (for example, 2004 Touring Electrical Diagnostic Manual).

This unit may be used with carbon core or spiral core spark plug wires. Do not use solid copper spark plug wires or non-resistor plugs. This may cause the unit to misfire.

Kit Contents

- Super Stock C Ignition Module

Additional Parts Required

- Deutsch® Black, 12-Socket DT Plug (H-D® P/N: 72119-94BK, Qty: 1)
- Deutsch DT Socket Locking Wedge (H-D P/N: 72159-94, Qty: 1)
- Deutsch DT Terminal Socket (H-D P/N: 72191-94, Qty: 9 (2004 Models), Qty: 10 (2005–2007 Models))
- Deutsch DT Seal Pin (H-D P/N: 72195-94, Qty: 3 (2004 Models), Qty: 2 (2005–2007 Models))

Optional Tools

As mentioned in the introduction, it is recommended that you have access to the proper tools for this installation. If you do not have Deutsch crimpers, MSD Ignition® sells an economic solution for properly crimping the terminals:

- MSD Pro-Crimp Tool II (P/N: MSD-35051)
- MSD Deutsch Terminal Dies (P/N: MSD-3510)

⚠ CAUTION

The Super Stock C is not compatible with the S&S Super Stock diagnostic cable and software (Operating Statistics and S&S Ignition Configuration). Do not attempt to use these tools with the Super Stock C ignition.

American IronHorse® 2004 Model Installation

1. Be sure that ignition switch is off and disconnect battery.
2. Remove stock ignition module
3. Remove the stock ignition module connector by cutting the wires as close as possible to the connector.
4. Strip the wire ends and crimp the Deutsch socket terminals on the wires.
5. Install the socket terminals into the Deutsch connector according to the wiring diagram shown in **Figure 1, next page.**
6. Install seal pins into unused positions and locking wedge on Deutsch connector.
7. Install Super Stock C and reconnect battery.

Installation is now complete.

2004 American IronHorse® Super Stock® C Ignition Wiring Diagram

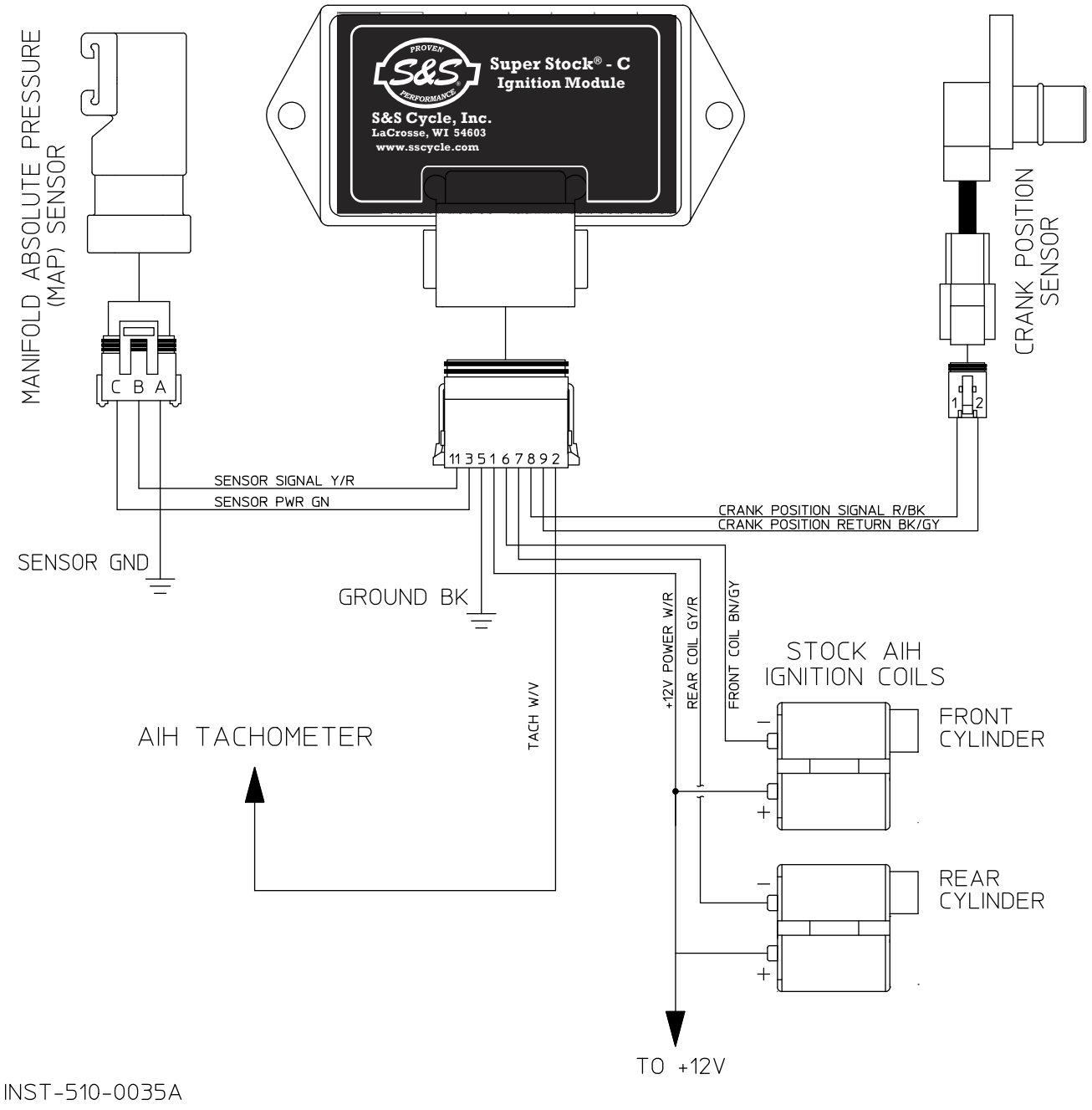

Figure 1

American IronHorse® 2005–2007 Model Installation

1. Be sure that ignition switch is off and disconnect battery.
2. Remove stock ignition module
3. Remove the stock ignition module connector by cutting the wires as close as possible to the connector.

Note: *In the stock wiring harness, the crank position sensor, manifold absolute pressure sensor, and engine temperature sensor share a common ground wire. This will not work with the Super Stock C ignition module and will require rewiring as described in the next steps.*

4. Follow the black/green ground wires from terminal "B" of the engine temperature sensor and terminal "A" of the manifold absolute pressure sensor to the junction with the black/grey return wire of the crank position sensor. Cut the engine temperature and manifold pressure sensor ground wires at this point. The engine temperature sensor portion of the wiring harness may be removed or taped up. It will not be used with the Super Stock C ignition.
5. Extend the ground wire from terminal "A" of the manifold pressure sensor to the location of the ignition module, strip the end, crimp on a Deutsch® terminal, and install in position 4 of the Deutsch connector.
6. Be sure that any exposed wires are protected from the elements using electrical tape or equivalent.
7. Strip remaining wires that go to the ignition module and crimp on Deutsch terminals.
8. Install the socket terminals into the Deutsch connector according to the wiring diagram shown in **Figure 2, next page.**
9. Install seal pins into unused positions and locking wedge on Deutsch connector.
10. Verify using a multimeter that there is no continuity between terminals 4 and 9 on the Deutsch connector.
11. Verify that there is continuity between terminal "A" at the manifold pressure sensor and terminal 4 of the Deutsch connector.
12. Verify that there is continuity between terminal 2 at the crank position sensor connector and terminal 9 on the Deutsch connector.
13. Install Super Stock C and reconnect battery.

Installation is now complete.

2005–2007 American IronHorse® Super Stock® C Ignition Wiring Diagram

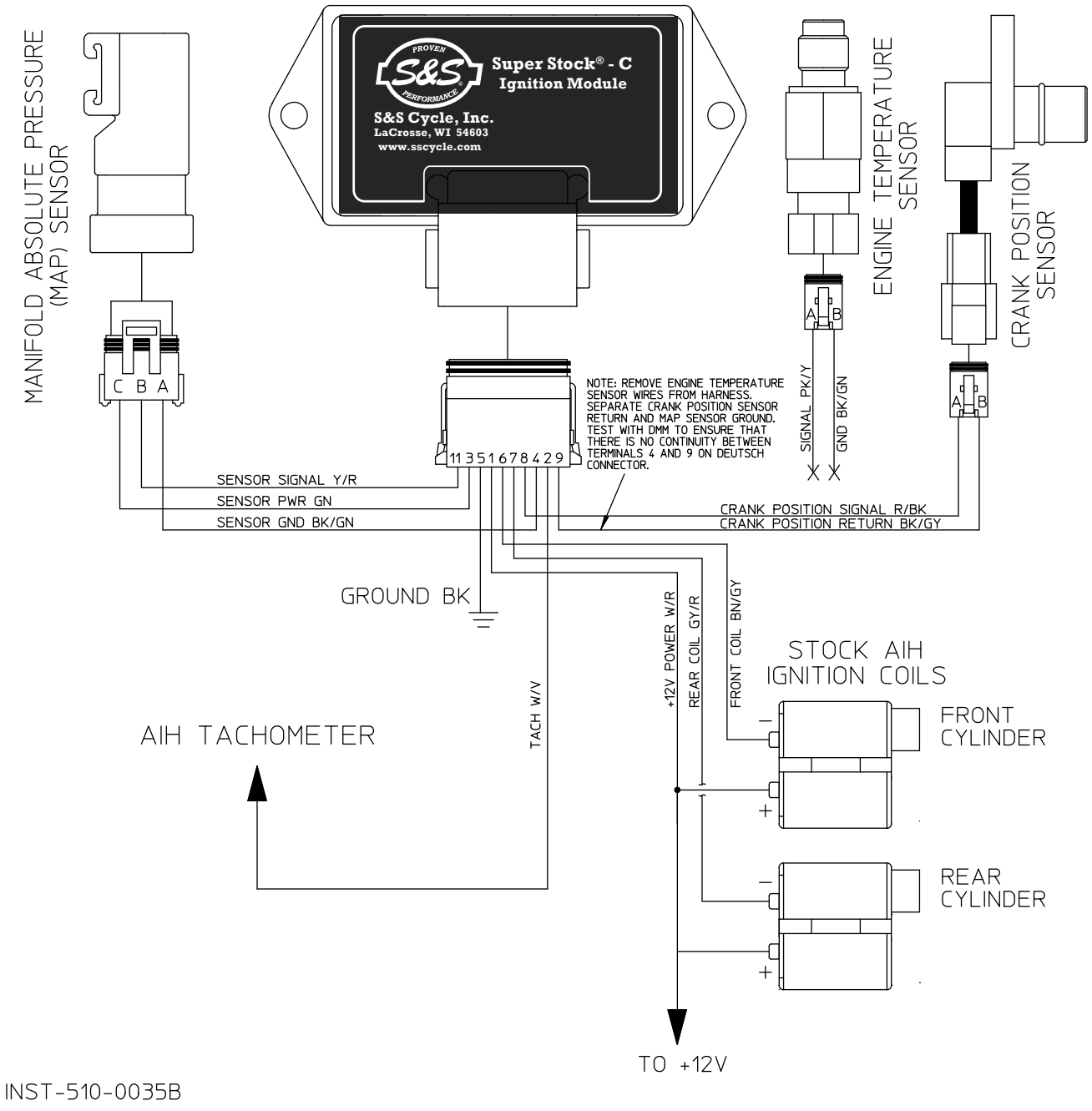

Figure 2

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